



# Mathematics Reference Sheet

## Formulas

Square

$$\text{Area} = s^2$$

Triangle

$$\text{Area} = \frac{1}{2}bh$$

Rectangle

$$\text{Area} = lw$$

$$\text{Perimeter} = 2l + 2w$$

Trapezoid

$$\text{Area} = \frac{1}{2}h(b_1 + b_2)$$

Circle

$$\text{Area} = \pi r^2$$

$$\text{Circumference} = \pi d$$

or

$$\text{Circumference} = 2\pi r$$

Pi

$$\pi \approx 3.14$$

Fahrenheit to Celsius

$$C = \frac{5}{9}(F - 32)$$

Celsius to Fahrenheit

$$F = (\frac{9}{5}C) + 32$$

Simple Interest

$$I = prt$$

Rectangular Solid

$$\text{Volume} = lwh$$

Right Cylinder

$$\text{Volume} = \pi r^2h$$

Sphere

$$\text{Volume} = \frac{4}{3}\pi r^3$$

Right Cone

$$\text{Volume} = \frac{1}{3}\pi r^2h$$

Square Pyramid

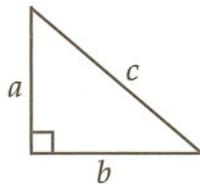
$$\text{Volume} = \frac{1}{3}lwh$$

Distance

$$d = rt$$

Pythagorean Theorem

$$a^2 + b^2 = c^2$$



where  $a$  and  $b$  are the legs of the triangle and  $c$  is the hypotenuse

Standard Form:

$$Ax + By = C$$

Slope-Intercept Form:

$$y = mx + b$$

Point-Slope Form:

$$y - y_1 = m(x - x_1)$$

## Conversions

1 yard = 3 feet = 36 inches

8 fluid ounces = 1 cup

1 kilometer = 1000 meters

1 mile = 1760 yards = 5280 feet

2 cups = 1 pint

1 meter = 100 centimeters

1 acre = 43,560 square feet

2 pints = 1 quart

1 centimeter = 10 millimeters

60 seconds = 1 minute

4 quarts = 1 gallon

1 kilogram = 1000 grams

60 minutes = 1 hour

16 ounces = 1 pound

1 liter = 1000 milliliters